

WHAT IS CLAIMED IS:

1. An electro-optical display device comprising:
- a first substrate having an insulating surface;
 - at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;
 - a first leveling film comprising an organic resin formed over said at least one thin film transistor;
 - a pixel electrode formed over said first leveling film and electrically connected to one of said source and drain regions of the thin film transistor;
 - black stripes comprising a resin formed over a second substrate;
 - a second leveling film formed over said black stripes; and
 - a common electrode formed on said second leveling film wherein said second substrate is disposed so that said common electrode is opposed to said pixel electrode with a gap therebetween.
2. An electro-optical display device comprising:
- a first substrate having an insulating surface;
 - at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;
 - a first leveling film comprising an organic resin formed over said at least one thin film transistor;
 - a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;
 - color filters formed over a second substrate;
 - a second leveling film formed over said color filters; and
 - a common electrode formed on said second leveling film wherein said second substrate is disposed so that said common electrode is opposed to said pixel electrode with a gap therebetween.

3. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

a first leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said first leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

black stripes comprising a resin formed over a second substrate;

color filters formed over said second substrate wherein said black stripes are disposed between said color filters; and

a second leveling film formed over said black stripes and said color filters wherein said second substrate is opposed to said first substrate with said second leveling film located therebetween.

4. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a first leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said first leveling film and electrically connected to the other one of said source and drain regions of the thin film transistor;

black stripes comprising a resin formed over a second substrate;

a second leveling film formed over said black stripes wherein said second substrate is opposed to said first substrate with said second leveling film located therebetween.

5. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a first leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said first leveling film and electrically connected to the other one of said source and drain regions of the thin film transistor;

color filters formed over a second substrate;

a second leveling film formed over said color filters wherein said second substrate is opposed to said first substrate with said second leveling film located therebetween.

6. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;

an electrode formed on said interlayer insulating film and electrically connected to one of said source and drain regions;

a first leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said first leveling film and electrically connected to the other one of said source and drain regions of the thin film transistor;

black stripes comprising a resin formed over a second substrate;

color filters formed over said second substrate wherein said black stripes are disposed in gaps between adjacent color filters;

a second leveling film formed over said black stripes and said color filters wherein said second substrate is opposed to said first substrate with said second leveling film located therebetween.

7. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

black stripes comprising a resin formed over a second substrate;

a common electrode formed over said black stripes wherein said second substrate is disposed so that said common electrode is opposed to said pixel electrode with a gap therebetween.

8. An electro-optical display device comprising:

a first substrate having an insulating surface;

at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

a leveling film comprising an organic resin formed over said at least one thin film transistor;

a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;

color filters formed over a second substrate; and

a common electrode formed over said color filters wherein said second substrate is disposed so that said common electrode is opposed to said pixel electrode with a gap therebetween.

9. An electro-optical display device comprising:
a first substrate having an insulating surface;
at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;
a leveling film comprising an organic resin formed over said at least one thin film transistor;
a pixel electrode formed over said leveling film and electrically connected to one of said source and drain regions of the thin film transistor;
black stripes comprising a resin formed over a second substrate;
color filters formed over said second substrate wherein said black stripes are disposed between said color filters wherein said second substrate is opposed to said first substrate with said color filters located therebetween.

10. An electro-optical display device comprising:
a first substrate having an insulating surface;
at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;
an interlayer insulating film formed over said thin film transistor;
a pixel electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions of the thin film transistor;
a second substrate opposed to said first substrate;
black stripes comprising a resin formed over a second substrate;
a leveling film formed over said black stripes.

11. An electro-optical display device comprising:
a first substrate having an insulating surface;
at least one thin film transistor formed over said first substrate, said thin film transistor comprising a channel region, source and drain regions with said channel region extending therebetween, a gate insulating film adjacent to said channel region, and a gate electrode adjacent to said gate insulating film;

an interlayer insulating film formed over said thin film transistor;
a pixel electrode formed over said interlayer insulating film and electrically connected to one of said source and drain regions of the thin film transistor;
a second substrate opposed to said first substrate;
color filters formed over said second substrate;
black stripes comprising a resin formed over a second substrate wherein said black stripes are disposed between said color filters;
a leveling film formed over said black stripes and said color filters.

12. The electro-optical display device according to claim 3, 4, 5, or 6 further comprising a common electrode formed on said second leveling film.

13. The electro-optical display device according to claim 10 or 11 further comprising a common electrode formed on said leveling film wherein said common electrode is opposed to said pixel electrode.

14. The electro-optical display device according to any one of claims 1 to 11 wherein said thin film transistor is top-gate type.

15. The electro-optical device according to any one of claims 1 to 11 wherein said pixel electrode is transparent.

16. The electro-optical display device according to claim 1, 2, 7, or 8 wherein said common electrode is transparent.

17. The electro-optical display device according to any one of claim 1, 3, 4, 6, 7, 9, 10 or 11 wherein said black stripes comprises polyimide.

18. The electro-optical display device according to any one of claims 1 to 11 wherein said display device is a television.

19. The electro-optical display device according to any one of claims 1 to 11 further comprising a liquid crystal between said first and second substrates.

20. The electro-optical device according to claim 1, 2, 3, 4, 5, or 6 wherein said second leveling film comprises polyimide.

21. The electro-optical device according to claim 10 or 11 wherein said leveling film comprises polyimide.

22. The electro-optical display device according to claim 2, 3, 5, 6, 8, 9 or 11 wherein said color filters comprises polyimide containing pigments.

23. The electro-optical display device according to claim 10 further comprising a common electrode opposed to said pixel electrode.

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